

Shortening time between CPR and shocks improves cardiac-arrest survival

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June 29, 2011 – Reducing the intervals between giving cardiopulmonary resuscitation (CPR) and an electronic defibrillator shock after cardiac arrest significantly improves survival, according to UT Southwestern Medical Center emergency medicine doctors involved in an international study.

Chest compressions applied within 10 seconds before the defibrillator shocks and within 20 seconds after the shock boosted survival chances by more than half compared to the rates for people who received chest compressions more than 20 seconds before or 40 seconds after the shock, according to findings reported in *Circulation: Journal of the American Heart Association*. The National Institutes of Health study is available online at <http://circ.ahajournals.org>

"We've been doing training in Dallas for two to three years to reduce the pauses between chest compressions and shocks to less than five seconds, and that has improved survival in the city about 60 percent," said Dr. Ahamed Idris, professor of emergency medicine and internal medicine at UT Southwestern and a pioneer in resuscitation research and [cardiopulmonary resuscitation](#) who was also a study co-author.

"This is really a very simple thing anyone can do to increase survival," noted Dr. Idris, director of the Dallas-Fort Worth Center for Resuscitation Research.

American Heart Association resuscitation guidelines advise minimizing

interruptions to chest compressions to 10 seconds or less. Previous studies, however, hadn't measured how such pauses in [CPR](#) affected survival through discharge from the hospital.

U.S. emergency medical services annually treat nearly 300,000 cardiac arrest cases that occur outside the hospital, according to the study. Less than 8 percent survive.

UT Southwestern serves as the lead investigative site for the Dallas-Fort Worth arm of the Resuscitation Outcomes Consortium, which conducted the study. The consortium is a group of 11 U.S. and Canadian emergency medical services that carry out research on cardiac arrest resuscitation and life-threatening traumatic injury.

Provided by UT Southwestern Medical Center

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